

Claims.

1. An electronic shelf comprising:

5 circuit boards slidingly received in the electronic shelf;

a front faceplate attached to a first circuit board;

10 the front faceplate having a recessed wall that defines a rearward extending recess between a bottom edge and a top edge of the first circuit board;

an optical fiber connected to the first circuit board;

15 a bail mounted adjacent the front faceplate, the bail being movable from a seated position to an extended position;

means for holding the optical fiber at an intermediate location along a length of the optical fiber at a first location on the bail;

20 the optical fiber having a first portion that is contained within the rearward extending recess with the bail in its seated position;

the first portion of the optical fiber being pulled forwardly from within the recess and away from the front faceplate with the bail in its extended position.

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2. The electronic shelf of claim 1 wherein no portion of the bail extends below a horizontal line defined by a top edge of the first circuit board when the bail is in its extended position.

30 3. The electronic shelf of claim 2 wherein the first portion of the optical cable when pulled forwardly away from the front faceplate with the bail in its extended position lies between a first and second plane, the first and second planes being parallel to a plane defined by the first circuit board, the first plane intersecting one vertical edge of the front faceplate and the second plane intersecting the other vertical edge of the front faceplate.

4. The electronic shelf of claim 1 wherein at least a portion of the front faceplate lies within a plane that is perpendicular to a plane defined by the first circuit board.

5. The electronic shelf of claim 1 further comprising a second portion of the optical fiber, the second portion beginning at the intermediate location of the optical fiber and extending away from the first circuit board, the second portion of the optical fiber extending substantially perpendicular to a plane defined by the first circuit board when the bail is in the seated and extended positions.

6. The electronic shelf of claim 1 further comprising means for pivotally mounting the bail, the pivotally mounting means disposed above a horizontal plane that intersects a top edge of the first circuit board.

7. An electronic shelf comprising:

a plurality of circuit board assemblies mounted adjacent each other, each circuit board assembly including:

a circuit board;

a front faceplate attached to the circuit board;

the front faceplate having a recessed wall that defines a rearward extending recess between a bottom edge and a top edge of the circuit board; and

an optical fiber connected to the circuit board;

the electronic shelf further comprising:

a bail mounted adjacent each of the front faceplates, each bail being movable from a seated position to an extended position;

means for holding each optical fiber at an intermediate location along a length of the optical fiber at a first location on the associated bail;

each optical fiber having a first portion that is contained within the rearward extending recess with the associated bail in its seated position;

5           the first portion of the optical fiber being pulled forwardly from within the recess and away from the associated front faceplate with the associated bail in its extended position.

8. The electronic shelf of claim 7 further comprising means for attaching the bails to each other so that all of the bails move in unison between the seated and extended positions.

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9. The electronic shelf of claim 8 wherein the means for attaching the bails to each other comprises a rigid rod attached to each bail.

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10. The electronic shelf of claim 7 wherein no portion of the bails extend below a horizontal plane defined by the top edges of the circuit boards when the bails are in the extended position.

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11. The electronic shelf of claim 10 wherein the first portion of the optical cable when pulled forwardly away from the front faceplate with the associated bail in its extended position lies between a first and second plane, the first and second planes being parallel to a plane defined by the circuit boards, the first plane intersecting one vertical edge of the associated front faceplate and the second plane intersecting the other vertical edge of the associated front faceplate.

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12. The electronic shelf of claim 7 wherein at least a portion of each of the front faceplate lies within a plane that is perpendicular to a plane defined by the associated circuit board.

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13. The electronic shelf of claim 7 further comprising each optical fiber having a second portion that begins at the intermediate location of the optical fiber and extending away from the associated circuit board, the second portion of the optical fiber extending substantially perpendicular to a plane defined by the associated circuit board when the associated bail is in the seated and extended positions.

14. The electronic shelf of claim 8 further comprising means for pivotally mounting the bails, the pivotally mounting means disposed above a horizontal plane that intersects a top edge of the circuit boards.

5 15. The electronic shelf of claim 1 wherein the recessed wall defines a rearward extending recess having a half dog bone cross section with first and second bulging portions dimensioned to accommodate minimum turn radii of the optical fiber.

10 16. The electronic shelf of claim 7 wherein the recessed wall defines a rearward extending recess having a half dog bone cross section with first and second bulging portions dimensioned to accommodate minimum bend radii of the optical fiber.

15 17. The electronic shelf of claim 1 further comprising a cabinet with a front door enclosing the circuit board assemblies, the front door disposed a short distance from the front faceplate.

18. The electronic shelf of claim 7 further comprising a cabinet with a front door enclosing the circuit board assemblies, the front door disposed a short distance from the front faceplate.

20 19. An electronic shelf comprising:

circuit boards slidingly received in the electronic shelf;

a front faceplate attached to a first circuit board;

25 the front faceplate having a slot near the lower edge of the front faceplate;

an optical fiber connected to the first circuit board;

30 an elongated tray extending below the first circuit board and substantially perpendicular to the plane of the first circuit board;

the tray positioned to support a length of the optical fiber;

the slot in the front faceplate dimensioned to permit the optical fiber to pass there through while the first circuit board is inserted and removed from an installed position in the electronic shelf.

- 5    20. The electronic shelf of claim 19 further comprising means for preventing the passage of radiated radio frequency energy through the slot in the front faceplate while the first circuit board is in the installed position in the electronic shelf.